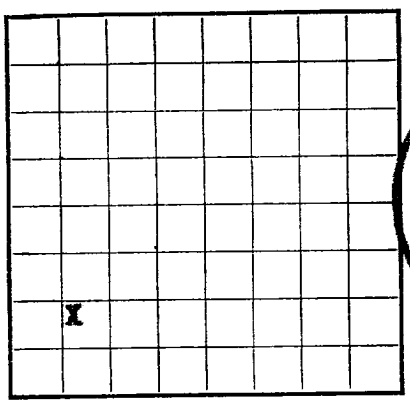
Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

Form 9-330

REVISED

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER SF-078949
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Pan American Petroleum Corporation Address Box 487, Farmington, New Mexico

Lessor or Tract Gallegos Canyon Unit Field West Kutz Fruitland State New Mexico

Well No. 77 Sec. 18 T. 29N R. 13W Meridian N.M.P.M. County San Juan

Location 990 ft. {N.} of S Line and 1090 ft. {E.} of W Line of Section 18 Elevation 5523
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed ORIGINAL SIGNED BY R. M. Bauer, Jr.

Date September 28, 1959 Title Area Engineer

The summary on this page is for the condition of the well at above date.

Commenced recompletion drilling June 18, 1959 Finished recompletion drilling June 23, 1959

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 1161 to 1195 G

No. 2, from to

No. 3, from to

No. 4, from to

No. 5, from to

No. 6, from to

IMPORTANT WATER SANDS

No. 1, from to No. 3, from to

No. 2, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut & pulled from	Perforated From	Perforated To	Purpose
8-5/8"	24#			260'					
5-1/2"	15.5#			1500'					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8-5/8"	260'	150 sacks cement	Halliburton	2	Plug
5-1/2"	1500'	75 sacks cement	Halliburton	2	Plug

Cemented off Pictured Cliffs perforations 1435-1440 with 50 sacks of cement.

Heaving plug—Material ---------- Length ---------- Depth set ----------

Adapters—Material ---------- Size ----------

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Well recompleted in Fruitland.

Rotary tools were used from ---------- feet to ---------- feet, and from ---------- feet to ---------- feet

Cable tools were used from ---------- feet to ---------- feet, and from ---------- feet to ---------- feet

DATES

Completed as shut in West Kutz-Fruitland Field Well, June 23, 1959, 19---

Put to producing Shut in for pipeline connection June 23, 1959

The production for the first 24 hours was ---------- barrels of fluid of which ---% was oil; ---% emulsion; ---% water; and ---% sediment.

Gravity, °Bé. ----------

If gas well, cu. ft. per 24 hours Preliminary Test 970 MCF

Gallons gasoline per 1,000 cu. ft. of gas ----------

Rock pressure, lbs. per sq. in. 370 Shut-in casing pressure 7 days.

EMPLOYEES

----------, Driller J. D. McDonald, Driller

----------, Driller Kenneth Hill, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	260	260	Surface sand & shale.
260	1135	875	Kirtland sands & shales.
1135	1376	241	Fruitland sands, shales & coals.
			Potential Test: June 30, 1959: Flowed 1695 MCF per day through 3/4-inch choke after 3 hours. Absolute potential 1935 MCF per day.

FORMATION RECORD—Continued

[OVER]

16—43094-4

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

HISTORY OF OIL OR GAS WELL

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

On June 19, 1959 perforated off Pictured Cliffs perforations 1135-1148 with 50 sacks cement squeezed with 1200 psi. Top of cement plug at 1076'. Ran logs and perforated intervals 1161-1195 with four shots per foot followed by sand-water frac with 21,000 gallons water mixed with 20,000 pounds sand. Average input rate 57 barrels per minute and maximum treating pressure of 1450 psi. After cleaning out sand from 1182-1278, well tested 970 MCFD for 7 hours pitot tube measurement. 1-1/4" tubing set at 1217'. Well was completed June 23, 1959, as a West Kutz-Fruitland gas well and shut-in waiting on pipeline connection.

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

FOLD MARK CORRECTLY